MINUTES
of the
THIRD MEETING
of the
DROUGHT SUBCOMMITTEE

August 28, 2013
San Juan College, Farmington

The third meeting of the Drought Subcommittee of the Water and Natural Resources Committee was called to order on August 28, 2013 at 12:15 p.m. by Representative Brian F. Egolf, Jr., vice chair, in the Henderson Fine Arts Center at San Juan College in Farmington.

Present
Sen. Joseph Cervantes, Chair
Rep. Brian F. Egolf, Jr., Vice Chair
Rep. Phillip M. Archuleta
Sen. Steven P. Neville
Rep. Tomás E. Salazar
Sen. Peter Wirth
Sen. Pat Woods

Absent
Rep. Rodolpho "Rudy" S. Martinez
Sen. John Arthur Smith

Advisory Members
Sen. Carlos R. Cisneros
Sen. Mary Kay Papen
Rep. Don L. Tripp
Rep. Bob Wooley
Rep. Cathrynn N. Brown
Sen. Stuart Ingle
Rep. Larry A. Larrañaga

Guest Legislators
Rep. Paul C. Bandy
Sen. Phil A. Griego
Rep. Thomas C. Taylor

Staff
Jon Boller, Legislative Council Service (LCS)
Jeret Fleetwood, LCS

Guests
The guest list is in the original meeting file.

Handouts
Handouts and other written testimony can be found in the meeting file or on the LCS web site.

Wednesday, August 28

Implication for the Management of Domestic Wells and Domestic Well Management Areas in View of the *Bounds* Decision

DL Sanders, chief counsel for the Office of the State Engineer (OSE), began by providing the subcommittee with a brief history of New Mexico's domestic well statute, explaining that before 1953, the process for obtaining a domestic well permit was the same as for all other applications for new appropriations of water, with the requisite publication of notice of application and opportunity to protest by other water rights owners. Given the small amount of ground water diverted to meet household needs, he explained, this cumbersome process should be streamlined. In 1953, the legislature enacted the domestic well statute, which allowed the issuance of domestic well permits without a lengthy administrative process. Since then, Mr. Sanders noted, tens of thousands of domestic well permits have been issued, and since the 1990s, legislation to limit the proliferation of domestic wells has been introduced in nearly every legislative session. He went on to explain that in 2006, Horace and Jo Bounds challenged the constitutionality of the domestic well statute. Mr. Sanders said that the Bounds had subdivided their land and drilled wells and had asked the OSE to curtail the water use of some junior users in the basin. Mr. Sanders pointed out that in order to curtail junior users, the senior user must demonstrate impairment, but the Bounds could not demonstrate impairment because they had not installed water meters. He explained that there were three complaints in the *Bounds* lawsuit: that the domestic well statute is facially unconstitutional; that it is unconstitutional as it is applied; and that it is a deprivation of due process. However, Mr. Sanders explained, the New Mexico Supreme Court ruled in favor of the OSE and the domestic well statute on all three claims, noting that there is a difference between a water right and the actual use of water, given that under the priority system, a junior water right owner may not have a right to use any water if senior users' rights are impaired.

Marvin Magee of the New Mexico Ground Water Association began by noting that the American Water Works Association estimated in a 2012 report to the United States Congress that a $900 billion funding gap for drinking water infrastructure repair will develop in the nation over the next two decades. Mr. Magee also noted that communities in New Mexico are struggling to maintain, repair and budget for future improvements to their water systems, and grants and low-interest financing are not as easy to obtain as they once were, making it difficult, if not impossible, to maintain antiquated systems. He also said that domestic wells are a safe, affordable alternative to expansion of public water supply systems and cited several domestic well projects that are estimated to cost less than public water system repair or installation. Mr. Magee also cited some of the benefits of domestic wells, such as safety, affordability and efficiency. He went on to point out that while OSE records do not reflect the actual number of wells in use, overall domestic well use accounts for less than two percent of all water use in New Mexico. Finally, Mr. Magee cautioned that if the legislature were to severely restrict the issuance of domestic well permits, the economic impacts, such as plummeting rural property values and the financial burden placed on already taxed public water systems, would be far reaching. Instead, he suggested the development of conservation and reasonable domestic well

management area restrictions and noted that the New Mexico Ground Water Association supports the metering of wells statewide and the establishing of annual withdrawal limits.

Jack Milarch, executive vice president and chief executive officer of the New Mexico Home Builders Association (NMHBA), noted that many debates occur over growth and sprawl and that, while water is a part of that discussion, there are other issues at work. He indicated that the NMHBA supports active water resource management and the OSE's efforts to address domestic well issues, particularly in some areas of the state, because there is a need for a more sustainable system of administering water rights. Mr. Milarch also noted that work must be done to address the pollution of ground water, particularly from septic tanks, and the NMHBA supports septic tank regulations. He pointed out that wells can be a good alternative to municipal water and discussed some of the methods employed by other states to address domestic well issues, such as Texas' restrictions on pump size. Mr. Milarch went on to say that while many new home features reduce water use, such as shower heads that restrict flow and low-flow toilets, technology such as recirculating pumps can go even further in the reduction of water use. He also encouraged the development of a more efficient market for small amounts of water, noting that it currently takes over a year for many transfers of existing water rights.

Pat Casey, president of the NMHBA, began by discussing the effects of the *Bounds* case, explaining that it is tough to pinpoint the real effects because one source of water affects other sources. He also noted that public water systems do not account for much of statewide water use, with total domestic well use adding up to about two percent of the total state water supply. Mr. Casey indicated that, in light of the relatively small amount of water that domestic well use accounts for, changes to domestic well regulations will likely not have much effect on total state water use but could have devastating economic effects for homebuilders. Mr. Casey pointed to water loss in irrigation canals and leaks in water systems as signs that water infrastructure throughout the state needs improvement. In Silver City, he explained, the water system was losing 22,000 gallons of water per day, which added up to over eight million gallons a year. He also discussed water recirculating pumps as a good way of conserving water because the amount of water lost while waiting for tap water to heat up is significant, and he stressed the need for everyone to conserve water.

Questions and comments from the subcommittee included the following:

- some of the controversy over domestic wells has died down because homebuilding and growth have slowed and the OSE has promulgated domestic well rules;
- rules regarding well drilling and construction address the issue of rainwater polluting ground water through a seal at the surface;
- nothing is established in code, but homebuilders can install black and grey water segregation systems;
- utilities need to charge enough to be able to cover infrastructure repair;
- rules have been created for several domestic well management areas, such as the Mimbres Valley, the lower Rio Grande and the Chama River;
- the process for getting users off of individual wells and into mutual domestic water

consumers associations (MDWCAs);
- transfer of water rights and "seed water" for MDWCAs;
- progress of the OSE on promulgation of domestic well rules;
- the first well owner in an area tends to drill a somewhat shallow well, while subquent well owners dig deeper wells; however, lowering the aquifer is not an impairment;
- resistance by some groups to the adding of water conservation technologies to the building code is based on the fact that each home is different and that mandating technologies can lead to problems;
- statewide water use numbers can be misleading;
- Water Trust Board rules and regulations have had an adverse effect on water system financing for small communities;
- the *Bounds* decision says the legislature gives the authority to regulate domestic wells to the OSE, but the responsibility still rests with the legislature;
- law versus hydrology when it comes to well impairment;
- well drillers and well users are in a race to the bottom of the aquifers; and
- it takes about three years to compile statewide water-use charts.

Colorado River Basin Water Supply and Demand Study (CRBS) — Implications for New Mexico — Water Use Efficiency, Reuse and Transfers, Watershed Management and Environmental Flows

Carly Jerla, co-study manager, CRBS, for the U.S. Bureau of Reclamation (BOR), began by providing the subcommittee with an overview of the CRBS, explaining that it is intended to assess future water supply and demand imbalances for the next 50 years. She noted that the study will also provide development and evaluation of opportunities for resolving some of those imbalances, but she emphasized that the CRBS is a planning study and does not suggest decisions; rather, it provides the technical foundation for future activities. Ms. Jerla began by showing that the water supply in the Colorado River Basin has steadily declined over the past 100 years, while water use has continued to increase. She added that the projected demand will likely outpace supply, and a 10-year imbalance of about 3.2 million acre-feet of water is projected 50 years out. She pointed out that imbalances have occurred in the past, but deliveries have been met due to reservoir storage. Ms. Jerla went on to provide the subcommittee with a summary of options submitted to the study, which range from increased supply to reduced demand to modified operations. She also discussed various portfolios, or futures, and their potential for vulnerability. To summarize, Ms. Jerla explained that the system is vulnerable if no action is taken and that taking some action reduces that vulnerability and makes the system more resilient. She also touched on potential short- and long-term actions.

Ms. Jerla went on to discuss the next steps after the survey, explaining that addressing future imbalances will require diligent planning and collaboration. She also noted that multi-stakeholder coordination teams have been formed, with the following work groups scheduled to meet and report back to the CRBS group:

- Municipal and Industrial/Conservation/Reuse Work Group;
- Agricultural Conservation and Transfers Work Group; and

- Environmental/Recreational Flows Work Group.

Ms. Jerla also pointed out that there are state- and BOR-led efforts under way. She said that phase one of the coordination team's work is under way and should be completed by the summer of 2014.

Estevan Lopez, director of the Interstate Stream Commission (ISC), explained that the ISC is the primary study participant from New Mexico, particularly with regard to cost-sharing and in-kind services. He noted that New Mexico's interest is in both the upper and lower basins of the Colorado River — the upper basin because the state gets most of its share of the upper basin states' allotment from the San Juan River, and the lower basin because the Gila and San Francisco river basins eventually flow into the Colorado River. Mr. Lopez explained that New Mexico is interested in protecting its supply of water from the Colorado River Basin. New Mexico also participates in the CRBS because attempts to quantify water supply shortages on the river have revealed just how large these shortages are, in particular in the lower basin states, and everyone will be involved in arriving at a solution to address these shortages. He emphasized that there is no silver-bullet solution that will solve shortage issues, but, rather, the answer lies in many smaller-scale projects that target both supply and demand and chip away at shortages. Mr. Lopez went on to explain that with the implementation of the Navajo water rights settlement, all of New Mexico's Colorado River Compact share of water has been allocated to New Mexico and that, while the upper basin has experienced water shortages, the vulnerabilities in the lower basin are much larger.

Steve Harris, executive director of Rio Grande Restoration, explained to the subcommittee that he was speaking on behalf of Melinda Kassen, a member of the Environmental/Recreational Flows Work Group who had written many of the suggestions offered to the work group. He said that stakeholders and river managers should seek agreement on rivers in order to maintain their key ecological attributes, noting that several tools are available to maintain these flows. Mr. Harris pointed out that Colorado River recreation represents a $26 billion industry, providing over 250,000 jobs, with a $1.7 billion impact in New Mexico alone. He said that there are many strategies available for addressing issues on the river. He suggested that all of them be considered and noted his favorite suggestions, such as metering agricultural use, creating a drought reserve and creating ground water subdistricts that can charge fees for pumping. He also suggested granting the ISC enough funding to conduct a Rio Grande Basin study.

Kayrene Brothers, representing the CRBS Municipal and Industrial/Conservation/Reuse Work Group, explained that her group discussed four portfolios to address river imbalances but focused more on two portfolios because they are less energy intensive than scenarios such as importing water or desalination. However, she acknowledged that implementation of any portfolio will likely cost billions of dollars. Ms. Brothers emphasized that conservation represents a significant portion of the "low-hanging fruit" available to address imbalances, and conservation needs to be studied and conservation implemented in all basins. She also noted that

an additional savings of one million acre-feet from municipal/industrial conservation is needed.

John Longworth, a member of the CRBS' Agriculture Conservation/Transfers Work Group, explained that formation of the work group is the next step in the basin study. He said that the Agriculture Conservation/Transfers Work Group includes members from all seven Colorado River Basin states, along with several nongovernmental organizations and irrigation districts, and the group's charge is to collect information on agricultural conservation and water transfers. Mr. Longworth pointed out that the Imperial Valley agricultural diversion alone accounts for millions of acre-feet of water. He also noted that the group identified a ripple effect from the practice of buying agricultural water rights and transferring them to other uses. Mr. Longworth also said that the work group spent some time developing definitions that the members all agreed on, such as definitions for consumptive and non-consumptive use, return flows and saved water. He concluded by acknowledging that the problem of imbalances on the Colorado River is a very real one that the states have known about for some time.

Victor Marshall, an attorney for the San Juan Agricultural Water Users Association, expressed concerns he has regarding the BOR report on the Colorado River Basin. He said that water supply issues will continue to be a problem for the next 50 years. Mr. Marshall said that while the Navajo water rights settlement allocates all of New Mexico's share of water from the Colorado River Compact, delivery obligations arising from the federal Endangered Species Act of 1973 (ESA) will make it impossible to provide the amount of water necessary to fulfill the terms of the settlement. He noted that the ESA requires 700,000 acre-feet per year (a/f/y) to be sent down the San Juan River. Consequently, he said, New Mexico will be 700,000 acre-feet short each year.

Questions and comments included the following:

- the San Juan and Animas rivers provide surface water to New Mexico, while the Gila and San Francisco rivers are tributaries of the Colorado River;
- cities that receive at least some of their drinking water from the Colorado River Basin include Albuquerque; Santa Fe; Denver; Phoenix; Salt Lake City; Las Vegas, Nevada; Tucson; San Diego; and Los Angeles;
- the Navajo water rights settlement allocates 326,000 a/f/y to Navajo water users, and the rest of New Mexico's San Juan River water is divided between the San Juan-Chama project (106,000 a/f/y) and non-native irrigators (200,000 a/f/y);
- without a settlement, Navajo claims could potentially take all of the water New Mexico is entitled to under the Colorado River Compact;
- claims that New Mexico will be short 700,000 a/f/y due to ESA requirements are highly flawed and completely inaccurate;
- the impact of drought and fires on the Colorado River supply in that most reservoirs were full in 2000 but are now at particularly low levels;
- many in the lower Colorado River Basin believe desalination and importing water are key strategies, but those kinds of projects take a long time to develop, fund and build;
- the Navajo water rights settlement allocates for all of New Mexico's share of

Colorado River water, but it does not displace non-native water users; it helps mitigate the impact of future shortages and avoids costly litigation that could displace some users;

- desalination projects look at coastal locations for plants that would return byproducts to the ocean;
- both water supply and demand need to be examined;
- the cost of water desalination plants is beginning to come down, making such projects a bit more viable;
- cutting off or limiting agricultural water will have an impact on food supply;
- each Colorado River Basin state handles water shortages and the equivalent of priority administration differently, but each state has to stay in Colorado River Compact compliance;
- lower basin states are already conducting water shortage negotiations;
- Arizona, Nevada and Mexico will be subject to shortages once reservoirs drop below a certain level, while California is currently exempt from such shortages; and
- a form of water banking already exists in the lower Colorado River Basin.

Subcommittee Discussion and Questions

Senator Cervantes explained that he set aside some time for the subcommittee to discuss whatever subcommittee members wished to discuss.

In response to a question from Senator Griego, Mr. Lopez explained that when New Mexico stores compact delivery water downstream in Elephant Butte Reservoir, the state is responsible for some of the lake's evaporative loss. However, he said that the current operating agreement between the Elephant Butte Irrigation District and El Paso County Water Improvement District #1 does not hold Texas accountable for evaporative losses in Elephant Butte Reservoir.

In response to a question from Senator Wirth regarding the tension between water conservation and the law, Mr. Sanders and Mr. Longworth noted that one of the concepts in New Mexico water law is "use it or lose it", explaining that water must be put to beneficial use or the right is subject to forfeiture if not put in an approved conservation program or if it is not part of a city's 40-year water plan. They also noted that water rights holders, no matter how old their rights, are entitled to only as much water as they can beneficially use. Mr. Sanders and Mr. Longworth also said that a water rights holder could conserve water and sell the "extra" water if that user is able to demonstrate savings, but no one has been able to demonstrate savings. Mr. Longworth noted that agricultural water users have become very good at consuming water. He said that in the CRBS work groups, discussion of how to define and measure savings arose often, with no agreement yet reached on how to measure it.

Senator Cervantes discussed litigation with Texas over water. He explained that since Caballo and Elephant Butte reservoirs are virtually empty, the only way farmers in southern New Mexico are receiving any water is through the pumping of ground water. However, Senator

Cervantes said that Texas is suing New Mexico to halt that pumping, and, if it succeeds, southern New Mexico will begin looking to northern New Mexico for water. Mr. Lopez said that Texas has asked the United States Supreme Court to take the case, and representatives from both states have spoken with the court.

Mr. Lopez also noted that the 2008 operating agreement between the Elephant Butte Irrigation District and El Paso County Water Improvement District #1 was facilitated by the BOR, while the State of New Mexico did not have a role in the agreement.

There being no further business, the subcommittee adjourned at 4:50 p.m.